

Listing of Claims

1-12 (Canceled)

13. (Currently Amended) A data transmission system, comprising:

at least one personal computer; and

a multi-access system including or coupled to a communication device, the multi-access system coupled to the personal computer through a Bluetooth connection;
wherein data packets are transmitted between the personal computer and the communication device through the Bluetooth connection, ~~and~~

wherein the data packets are sent from the communication device for transmission via an air interface to the Internet,

wherein the multi-access system comprises:

a system for receiving data packets from a plurality of computers;

a packet-call connection system for interfacing with one or more radio communication terminals; and

a multi-access routing system for routing data packets from a multimedia system to the radio communication terminals according to a slot assignment method, and

wherein the slot assignment method comprises:

performing a one-on-one assignment for mapping each of the computers to a respective one of the radio communication terminals; and

a common sharing method for allowing each computer to share the plurality of radio communication terminals for transmitting data packets.

14. (Previously Presented) The system of claim 13, wherein a plurality of personal computers access at least one radio communication terminal through the multi-access system.

15. (Previously Presented) The system of claim 13, wherein the personal computer is a laptop computer.

16. (Previously Presented) The system of claim 13, further comprising:
at least one radio communication terminal;
wherein the multi-access system is located between the radio communication terminal and the personal computer.

17. (Previously Presented) The system of claim 16, wherein the data packets belonging to a same call are transmitted from the personal computer for wireless transmission through a plurality of radio communication terminals.

18. (Previously Presented) The system of claim 13, wherein data packets belonging to a same call are transmitted between the personal computer and a plurality of radio communication terminals based on a same destination IP address and a same data link address, said same data link address corresponding to the personal computer.

Reply to Final Office Action of Aug. 24, 2009

19. (Currently Amended) A data transmission The system of claim 13, comprising:
- at least one personal computer; and
- a multi-access system including or coupled to a communication device, the multi-
- access system coupled to the personal computer through a Bluetooth connection;
- wherein data packets are transmitted between the personal computer and the
- communication device through the Bluetooth connection,
- wherein the data packets are sent from the communication device for transmission
- via an air interface to the Internet, and
- wherein the multi-access system comprises:
- a system for receiving data packets from a plurality of computers;
- a packet-call connection system for interfacing with one or more radio
- communication terminals; and
- a multi-access routing system for routing data packets from a multimedia
- system to the radio communication terminals according to a slot assignment method, and
- wherein the receiving system comprises:
- a plurality of physical data link control circuits provided in one-to-one
- correspondence with the plurality of computers, each of said physical data link control circuits
- controlling a corresponding physical data link;
- a TCP/IP control circuit to perform a TCP/IP protocol function on data packets
- transmitted from the plurality of physical data link control circuits;

a command/response control circuit for performing/responding to a command of
the computers transmitted from the TCP/IP control circuit; and
a data control circuit for sorting and buffering data transmitted from the TCP/IP
control circuit.

20. (Previously Presented) The system of claim 19, wherein the slot assignment method is set by the plurality of computers.

21. (Canceled)

22. (Canceled)

23. (Currently Amended) A data transmission ~~The system of claim 19, comprising:~~
at least one personal computer; and
a multi-access system including or coupled to a communication device, the multi-
access system coupled to the personal computer through a Bluetooth connection;
wherein data packets are transmitted between the personal computer and the
communication device through the Bluetooth connection,
wherein the data packets are sent from the communication device for transmission
via an air interface to the Internet,

wherein the multi-access system comprises:

a system for receiving data packets from a plurality of computers;

a packet-call connection system for interfacing with one or more radio

communication terminals; and

a multi-access routing system for routing data packets from a multimedia system to the radio communication terminals according to a slot assignment method, and

wherein the multi-access routing system:

sets a slot assignment method according to a command of at least one of the computers,

assigns a slot to said one of the computers according to the set slot assignment method, and

routes data packets associated with a same call between said one of the computers and multiple ones the radio communication terminals based on said a same destination IP address and said a same data link address associated with each of the packets.